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### What is Known About Tobacco Industry Efforts to Influence Tobacco Tax?

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**Title: What is known about tobacco industry efforts to influence tobacco tax? A systematic review of empirical studies**

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**Title: What is known about tobacco industry efforts to influence tobacco tax? A systematic review of empirical studies**

**ABSTRACT**

**Objective:** To systematically review studies of tobacco industry efforts to influence tax policies.

**Data sources:** We conducted searches between 1<sup>st</sup> October 2009 and 31<sup>st</sup> March 2010 on 14 databases/websites, in relevant bibliographies and via experts.

**Study selection:** We included studies if they: focused on industry efforts to influence tobacco tax policies; drew on empirical evidence; were in English; concerned the period 1985-2010. 36 studies met these criteria.

**Data extraction:** Two reviewers undertook data extraction and critical appraisal. A random selection of 15 studies (42%) was subject to second review.

**Data synthesis:** We assessed evidence thematically to identify distinct tobacco industry aims, arguments and tactics. 34 studies examined industry efforts to influence tax *levels*. They suggest industry works hard to prevent significant increases and particularly dislikes taxes 'earmarked' for tobacco control. Key arguments to counter increases are that tobacco taxes are socially regressive, unfair and lead to increased levels of illicit trade and negative economic impacts. For earmarked taxes, the industry also frequently tries to raise concerns about revenue allocation. Assessing industry arguments against established evidence demonstrates most are unsupported. Key industry tactics include: establishing 'front groups'; securing credible allies, direct lobbying; and publicity campaigns. Only seven studies examined efforts to influence tax *structures*. They suggest company preferences vary and tactics centre on direct lobbying.

**Conclusions:** The tobacco industry has historically tried to keep tobacco taxes low using consistent tactics and misleading arguments. Further research is required to explore efforts to influence: tax structures; excise policies beyond the US; recent policies.

**Abstract word count:** 250 words

**Keywords**

1. Systematic review
2. Tobacco excise structures (specific tax / ad valorem tax)
3. Tobacco tax increases
4. Hypothecated taxes / earmarked taxes
5. Tobacco industry
6. Tobacco control

## BACKGROUND

Much has been learnt about industry efforts to influence tobacco control policies, particularly through research on internal corporate documents released via litigation in the US.[1] Systematic reviews of particular policy areas within this literature can provide succinct overviews,[2-4] enabling common industry tactics and arguments, as well as any important gaps in the evidence-base, to be identified.[2,5] This systematic review examines studies investigating tobacco industry efforts to influence tobacco tax policies. These are of central importance to tobacco companies, both because they are one of the most effective policy levers for tobacco control,[6-8] and because tax levels and structures impact on profits.[8]

### Tobacco Taxes

Traditionally tobacco excise taxes have been implemented as a means of accruing government revenue but they are increasingly also being used for tobacco control.[7-9] A number of different types of tobacco excise tax exist – see **Box 1**.

#### **Box 1: Common Taxes on Tobacco Products**

*Ad valorem tobacco excise:* a tax based on a percentage of the retail price. This type of tax tends to widen price differences between cigarette brands, making expensive brands relatively more expensive. From a policy perspective, ad valorem taxes are attractive because they automatically increase with industry price increases and are implicitly linked to inflation. However, ad valorem excise allows industry to control tax levels by keeping prices low (e.g. companies could lower their prices in response to a tax increase, reducing the impact of the tax increase and thereby lowering the associated public health benefit).

*Specific tobacco excise:* a fixed tax per cigarette. This type of tax works by adding a fixed, monetary tax to every cigarette, regardless of its baseline price. It reduces price differences between brands, benefitting manufacturers of more expensive cigarettes. For this reason, and because specific taxes tend to increase consumer prices relatively more than ad valorem excises, leading to higher reductions in consumption, it is generally favored for tobacco control purposes.[8] Specific excises also provide more predictable revenue for governments. From an industry perspective, this type of structure allows companies to raise the base price of products (and therefore boost profit) without increasing the tax and, because they are not automatically linked to inflation, specific taxes may decline over time in real terms (unless a link to inflation is built in or policymakers regularly increase tobacco taxes).

*Import duties:* taxes paid on imported goods to a country/region. Duties may be applied to raw tobacco and/or tobacco products and may be calculated on a specific or ad valorem basis.

*Value Added Tax (VAT) / Sales Taxes:* tobacco products may also be subject to more general consumer taxes, such as VAT (usually calculated on an ad valorem basis).

Tobacco taxes can also be 'earmarked' ('hypothecated') for spending in particular areas (e.g. some cigarette taxes in some US states are ring-fenced for spending on specific health issues).

## METHODS

We systematically sought to identify empirical (qualitative and quantitative) studies concerning tobacco industry efforts to influence tobacco tax policies. We included studies if they: focused on tobacco industry efforts to influence tax policies; drew on empirical evidence; were written in English; and concerned the period 1985-2010 (significant changes to the tobacco market since the mid-1980s decreased the relevance of earlier studies). 14 electronic databases/websites were searched between October 2009 and March 2010. These covered academic research (published and unpublished), grey literature and some newspaper articles. The main search string employed was: (tobacco OR cigar\* OR snus OR 'Philip Morris' OR JTI OR 'R.J. Reynolds' OR Gallaher) AND (taxation OR tax OR excise OR price OR pricing) AND (polic\* OR intervention OR lobb\* OR influence), although this was adapted for specific sites (full search strategy details are available in the **Web Appendix**). In addition, the bibliographies of all included publications were hand searched and experts were contacted to identify further studies.

In total, we located 2,678 publications, of which we excluded 2,424 on the basis of the title/abstract. We retrieved 243 publications for full analysis but were unable to locate 11 publications (mostly newspaper or magazine articles). On the basis of the full analysis, we excluded a further 197 publications. The remaining 46 publications met the inclusion criteria. However, in several cases more than one publication was based on the same study or policy initiative. These were assessed collectively to avoid 'double-counting'. In this article, we use the term 'study' to refer to all included publications relating to the same policy initiative(s). The total number of studies included was 36.

First reviewers extracted data from and critically appraised studies using critical appraisal criteria for qualitative papers (**Web Appendix**)[10-12]. No quality score was calculated. We undertook second reviewing for a random selection of 42% (15) of studies (see **Web Appendix**). We deemed further second reviewing unnecessary as less than a dozen differences were identified and all were minor.

## Synthesis

Having summarised and critically appraised all papers (**Web Appendix** provides a tabulated summary) we first categorised studies according to industry's tax-related aims, then assessed the arguments and tactics used to achieve these aims. Arguments and tactics were summarised in the order of frequency with which they were identified in studies, then assessed for veracity against recent, peer-reviewed evidence (notably the International Agency for Research on Cancer's (IARC) 2011 handbook on the effectiveness of tax and price policies for tobacco control).[8]

## RESULTS

### Tobacco industry aims and study context

The studies identified two distinct industry tax-related aims: (i) to influence tobacco tax levels;[13-56] and (ii) to shape tobacco tax structures.[14-17,23,57,58] Of the 34 studies discussing industry efforts to influence tax levels (five of which also discussed tax structures), only five concerned policies outside North America[13-17] (**Table 1**). 22 of these studies focused on state/province level, 11 (all in the US) focused on initiatives that could be introduced by popular vote,[22,24,25,29,30,36-39,41,42,44-46,49,53,56] six focused on standard legislative developments,[23,26,32,50,51,54] and five focused on both (or were unspecific).[19,31,33-35,43,47,52] 17 studies concerned policy proposals to substantially increase taxes *and* ‘ earmark’ the resulting revenue for tobacco control programmes (all at US state level). Although it is consequently difficult to ascertain whether the industry was concerned about tax increases *per se* or the funding of tobacco control activities, we distinguish arguments and strategies used to address each issue. Only one study focused on tobacco tax developments in an area with high levels of tobacco farming (South Carolina, USA).[51]

**Table 1: Geographical location and topic of studies**

Geographical Location	Number of studies	Reported Industry Aim(s)		
		Influence tax levels	Influence tax levels <i>and</i> structures	Influence tax structures
African countries	1 (national: South Africa)[13]	1[13]	0	0
European countries	1 (national: Hungary)[14]	0	1[14]	0
Former Soviet Union countries	3 (2 national: Moldova; & Uzbekistan; one regional)[15,57,58]	0	1[15]	2[57,58]
Middle Eastern countries	2 (one national; Lebanon; one regional)[16,17]	0	2[16,17]	0
North American countries	29 (7 national: 6 US; 1 Canada; 21 state level in US, 1 province level in Canada)[18-56]	28[18-22,24-56]	1[23]	0
<b>Total</b>	<b>36</b>	<b>29</b>	<b>5</b>	<b>2</b>

Seven studies concerned industry efforts to shape excise structures,[14-17,23,57,58] and these had a different geographic and economic profile, with only one North American study (Hawai'i).[23] The rest focused on countries retaining or in the process of privatising state-owned tobacco interests, where tobacco and economic policies were often in a state of flux.[14-17,57,58]

The majority of studies focused on policy developments between the mid-1980s and mid-1990s. Where more contemporary information was included, it was often limited.[14,17,29,30,32-35,39,40,44,45,47-52,54]

Arguments and tactics relating to the different aims are explored below. Where they appear to vary as a result of different geographical/political contexts, this is highlighted.

## Studies examining industry efforts to influence tax levels

### *Assessing industry arguments to keep tobacco taxes low*

All 34 studies focusing on industry efforts to influence tobacco tax levels state or imply that the aim was to prevent increases or reduce current levels. Arguments to keep tobacco taxes low are summarised in **Table 2** and briefly assessed against available evidence.

**Table 2: Industry arguments to influence tax levels**

Industry arguments to keep tobacco taxes low	Assessing industry arguments against available evidence
(1) Higher taxes will lead to illicit trade (especially smuggling) and, relatedly, organised crime.[13-15,17,18,22,23,26,31,38-41,49,51-54,56]	Comparative assessments show the countries with the highest rates of smuggling are not those with the highest levels of tobacco taxes.[8,59] In addition, two studies in this review found the industry was directly involved in smuggling when using this argument.[26,40] A decision to reduce taxes in Canada in response to this argument increased smoking rates in young people without significantly reducing smuggling.[26,40]
(2) Tobacco tax is regressive so higher taxes are unfair on poorer & more marginal groups in society. [20,21,27,28,31,32,38,39,41,43,44,48,50-54,56]	Although tobacco taxes do represent a higher percentage of the income of poorer consumers (both because poorer groups tend to consume more tobacco products and because tobacco taxes represent a significantly higher proportion of their incomes),[60-62] tobacco tax <i>increases</i> can also be viewed as progressive because poorer smokers are more price sensitive.[61-63] IARC found strong evidence that tobacco use among lower-income populations is more responsive to tax and price increases than tobacco use among higher-income groups (in high-income countries).[8]
(3) Tobacco taxes are unfair on, and punitive towards, smokers. [13,23,27,29,30,36,37,41,42,45,51,52]	Whilst some may agree that high tobacco taxes are unfair on smokers, it is also true that most smokers want to quit,[64,65] and that higher prices induce smokers to quit.[8]
(4) Tax increases will have negative economic impacts on local business and employment levels as they will lead to greater cross-border trade and/or	Although tax increases can lead to some tax avoidance (e.g. through cross-border trade), IARC found such behaviour failed to eliminate the larger

purchases from shops with tax breaks on tobacco products (e.g. shops on Native American Reserves). [26,31,32,38,39,41,49,50,54]	public health benefits and was not associated with significant negative economic impacts, such as unemployment.[8]
(5) Tax increases will lead to declines in government revenue (or less revenue than predicted). [13,19,26,31,49,54]	IARC found tobacco tax increases lead to more, not less, government revenue.[8]
(6) Tax increases, by increasing illicit and cross-border trade, will make it easier for young people to access tobacco products.[49,50,52]	In addition to the fact that broader evidence indicates there is no clear association between higher taxes and illicit trade (see above), IARC found tax increases are particularly effective at reducing consumption amongst young people, who tend to be more price sensitive.[8]
(7) Denial of link between increased tobacco prices (as a result of increased taxes) and reduced consumption.[26,28]	A great deal of evidence supports this link as summarised in the recent IARC review.[8] Evidence also indicates that the industry has been aware of this relationship for many years.[66] Indeed, one study in this review found evidence of the industry arguing that tax increases would result in job losses precisely because such rises <i>would</i> reduce consumption.[13]

The industry argument to prevent tax increases (or secure reductions) most commonly identified in studies was the claim that tax increases lead to illicit trade. In some cases, this argument was expanded on with claims that increases would divert police attention away from other (more violent) crimes.[56] It was deployed in the US at state level and at national levels in Canada, Lebanon, South Africa and a variety of Former Soviet Union countries, even in cases where smuggling was not a significant issue,[13] suggesting it is not context-specific. In several cases, this argument enabled industry to attract the support of non-traditional, credible allies such as the police.[26,53,56] Canada was sometimes used as an example to strengthen this argument,[13] following a successful industry campaign to reverse a tobacco tax increase there in the early 1990s, on the basis that this would reduce the growing smuggling problem.[26,40] In reality, the industry was directly involved in smuggling and the decision to reduce taxes only increased smoking rates in young people, without significantly reducing smuggling.[26,40]

The second most frequently identified argument was that tobacco excises are regressive, meaning higher tobacco taxes cost relatively more to poorer and more marginal groups. One study found the industry went as far as arguing such increases would contribute to class warfare, pitting upper middle class liberals (mostly white) against lower middle class, working people (mostly minority ethnic groups).[41] This argument also enabled the industry to secure anti-tax support from non-traditional allies, including labor groups (e.g. unions), organisations representing minority ethnic groups and left-of-centre politicians.[20,21,31,32,43,48]



As Table 2 illustrates, all of the other arguments identified in studies as being employed by industry to keep tobacco taxes low are unsupported by available evidence.

### *Assessing industry arguments to keep tobacco taxes to prevent earmarking*

17 studies, all focusing on the US, concerned proposals for tax increases in which revenue would be earmarked for health programmes.[20-22,24,25,28-30,36-39,41,42,44-47,50-54,56]. Arguments used by the industry to prevent earmarking are summarised in **Table 3** and assessed against the available evidence.

**Table 3: Industry arguments to prevent earmarking**

Industry arguments	Assessing industry arguments against available evidence
(1) The earmarked funds will be used in ways which the public do not support and/or which differ from those described in the original proposal(s). [22,24,25,29-31,36-39,41,42,44-46,51,53,56]	This argument was supported by the experience of some case studies. In some cases, the tobacco industry was found to have worked collaboratively with healthcare and health insurance organizations in order to achieve these diversions.[22,24,53]
(2) Framing the use of 'earmarked' funds to pay for healthcare costs as a tax on smokers to pay for services for others, which the industry argued was unfair.[37,39,42,52,54]	This is a value-based claim which would only be valid if it reflected public opinion in the specific context in which tax increases were being proposed (i.e. it is not generalisable). It also fails to acknowledge most smokers want to quit.[64,65]
(3) Claiming constitutional barriers prevent the introduction of earmarked tobacco taxes.[29,30,38,44,52]	This claim is context-specific but it is worth noting that many of the studies which noted industry efforts to legally (or otherwise officially) challenge tax proposals found such challenges were unsuccessful.[36,37,38,41,56]
(4) Claiming tobacco tax revenues are not a reliable source of revenue and that it is therefore fiscally irresponsible to fund social programmes via earmarked tobacco taxes.[39,44,50]	IARC concludes tobacco tax increases usually lead to increased government revenue,[8] suggesting such claims are misleading.
(5) Claiming earmarked taxes are examples of excessive state interference in people's personal lives/freedoms and/or are examples of the state exercising unwarranted power.[42,52].	This is a value-based claim which would only be valid if it reflected public opinion in the specific context in which tax increases were being proposed (i.e. it is not generalisable).
(6) Claiming earmarked taxes will lead to unnecessary, or unwieldy, state bureaucracies. [52,56]	We could find no evidence to support this claim.
(7) Claiming a dependency on earmarked taxes will result in spending cuts for specific programmes or gaps in funding for popular programmes.[37,51]	This claim is context specific but we could find no evidence to support it where it was used and, as IARC concludes tobacco tax increases usually lead to increased government revenue,[8] such claims appear to be misleading.

The vast majority of initiatives involved a direct public ballot/vote (feasible in 27 US states[67]), so it is difficult to assess their generalizability. Nevertheless, some important observations can be made by comparing the studies in this review. For example, the most commonly identified industry argument in the studies was that earmarked funds would be used in ways which the public did not support and/or which differed from those described in the original proposal. Specifically, the industry often argued that tobacco taxes would be misused to subsidise healthcare for poorer groups, which the industry sometimes framed as a diversion of funds to ‘greedy’ doctors, hospitals, healthcare companies, insurers and/or voluntary health groups.[22,29-31,36,37,42,44,51,53] Such efforts were helped by the fact that healthcare and health insurance organisations often wanted to divert the funds and by the fact the tobacco industry sometimes worked with them to try to achieve such diversions.[22,24,53] This not only limited resources for tobacco control (where funds had originally been earmarked for) but also provided evidence to support this argument.

Several other industry arguments against taxation identified in the studies are value (rather than evidence) based, such as the claim that tobacco taxes are unfair on smokers. Nevertheless, as **Table 3** illustrates, these claims fail to acknowledge that smoking is an addiction typically established in childhood,[68] and that most smokers would rather quit.[64,65]

Other arguments were context-specific but it is notable that some of these (such as the claim that particular proposals were illegal) were found to have been untrue in the contexts in which they were used.[36,37,38,41,56] The effectiveness of, and industry emphasis on, different arguments may vary with context (particularly in light of industry’s investment in market-research – see below). For example, arguments concerning unfairness and ‘state interference’ were more commonly identified in studies concerning Republican/swing states (i.e. states in which such arguments might be expected to be more persuasive).[39,42,52,54]

*Industry tactics to keep tobacco taxes low and prevent earmarking*

The tactics/mechanisms identified in the studies that the tobacco industry employed to counter tobacco excise increases are summarised in **Table 4**.

**Table 4: Industry tactics to keep tobacco taxes low and prevent earmarking**

(1) <i>Use of front groups</i> : To obscure its own interests and thereby increase the credibility of the arguments used, 19 studies reveal that the industry frequently established and/or funded ‘front groups’ (see <b>Box 2</b> ).[19,21-
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23,25,27,29,31,33-35,37-39,41-44,46,48-50,53,54,56]
(2) <i>Working with credible allies</i> : 19 studies report that the industry allied itself with pre-existing, credible public interest groups to increase the credibility of anti-tax arguments. [19,21,22,24,26-33,35,39,42,43,45,46,48-50,53-56]
(3) <i>Traditional (direct) lobbying</i> : 17 studies (of which 12 were in the US, with the others focusing on the Gulf Cooperation Council countries, Hungary, Lebanon, South Africa and Uzbekistan) report evidence of traditional lobbying techniques, with industry targeting key decision-makers both directly and indirectly (e.g. via consultants, campaign groups, business organisations, etc).[13-17,21-24,25,29,30,32-34,43,47,49-51,53,56]
(4) <i>Media (including op-ed pieces and letters to newspapers) and other publicity campaigns to encourage public opposition to proposed taxes</i> : 16 studies found the tobacco industry used media/publicity campaigns to raise public awareness about tax proposals and create/increase public support for the industry's position.[19,26-31,34,37,38,41,42,44,48-50,52,53]
(5) <i>Commissioning supportive/informative research, including market research of public opinion designed to inform industry campaigns</i> : 13 studies reported evidence of the industry commissioning studies to support/inform its arguments about tobacco taxes. [14,19,21,23,26,42,44-46,48,52,55,56]
(6) <i>Employing consultants, public relations and/or advertising staff/firms</i> : 12 studies demonstrate that, to gain advice and assistance with tax lobbying and publicity campaigns, the industry employed consultancy, public relations, lobbying and/or advertising firms/staff.[14,16,17,19,24,25,33,34,41,48,50,52-54]
(7) <i>Paying or giving gifts to policy-makers</i> : To help attract political support for industry positions on taxation, eight studies found evidence of the industry paying or giving gifts to officials, political parties or campaigns.[22,24,31-33,42,44,51,55,56]
(8) <i>Mounting legal/official challenges</i> : seven studies (all in the US) reported industry efforts to mount legal or other official challenges to combat excise legislation.[25,34,37,38,41,42,45,53,56]
(9) <i>Confusing debates about tobacco tax increases with broader tax debates</i> : six studies reported industry efforts to frame debates about tobacco excise increases within broader debates about general tax increases, or to confuse proposals for tobacco tax increases with other unpopular tax increases.[22,29,30,45,46,48,52]
(10) <i>Working collaboratively</i> : six studies found tobacco companies worked collaboratively to counter proposals for tobacco tax increases, often via the Tobacco Institute.[19,32,42,49,50,56] Many other studies implicitly suggested tobacco company collaboration by referring generically to the 'tobacco industry'.
(11) <i>Working to divert earmarked funds</i> : Where earmarked tobacco excise increases were being pursued, five studies found the tobacco industry worked to divert funds away from tobacco control measures to other causes (see discussion above).[22,24,25,37,38,39,41,53,56]
(12) <i>Proposing alternative legislation</i> : five studies identified industry efforts to promote weaker or irrelevant proposals/ballots to distract attention away from the original proposal.[29,30,37,38,40,53,56] This included contributing money to a different ballot campaign 'to disrupt the signature-gathering process' in Oregon,[37] using an industry funded group to circulate a competing petition, reducing the pool of available paid signature-gatherers (by paying more for a different campaign) and confusing voters about the official proposal in California,[53] and supporting proposals for smaller/more gradual tax increases or for increases which would earmark less revenue for tobacco control programmes in Missouri and Massachusetts.[29,30,38,41]
(13) <i>Using friendly, 'independent' experts</i> : four studies found that the industry was using friendly 'experts' to present its arguments and aid their credibility.[23,18,37,53] Examples included a high profile dentist,[37] an allegedly undercover police officer,[53] and Wall Street analysts who were briefed by the tobacco industry before presenting their opinions to officials but who did not disclose this.[18,37,53]
(14) <i>Stimulating smuggling in the event of tax increases</i> : Two studies (one in Canada and one in the US) reported that the industry had been involved in facilitating smuggling following tax increases.[19,40] The most detailed study indicates the industry helped promote smuggling during a period in which tax increases were in place in Canada

because it enabled them to maintain or increase profit margins as well as providing support for their claim that the tax increases lead to increased illicit trade (see above).[40]
(15) <i>Using tobacco industry employees/staff</i> : Two studies found tobacco companies encouraged staff and/or shareholders to individually lobbying their political representatives against tobacco tax increases.[18,19]
(16) <i>Trying to undermine tobacco control experts</i> : One study reported that the industry had attempted to undermine the credibility of a key tobacco control academic by alleging without proof that he had misused grant funds for illegal political purposes and lobbying.[34]
(17) <i>Encouraging groups supportive of higher taxes to push for alternative taxes</i> : One study reported that the industry was so keen to avoid tobacco taxes that it encouraged groups perceived to be supportive of higher taxation to push for a higher tax on corporations rather than tobacco taxes,[20,21] even though tobacco companies frequently also lobby for lower corporate taxes.[69]
(18) <i>Promoting the need for ‘sunset’ clauses</i> : One study reported that the industry successfully promoted the need for a ‘sunset’ clause to be included in legislation for a tobacco tax increase, effectively making it easier to challenge/repeal in future.[32]
(19) <i>Trying to shift the policy/public focus</i> : One study reported that the industry tried to divert attention away from tobacco tax proposals, claiming that issues such as ‘salary levels of state employees, the quality of the universities and public school system, and the environment’ were more pressing than tobacco tax.[52]
(20) <i>Limiting the possibility of tax increases by increasing prices</i> : One study suggested that the tobacco industry disguised retail price increases behind well-publicised tobacco tax increases and then used these increases to restrict the government’s ability to further increase tobacco taxes.[13]
(21) <i>Calling for an end to public service announcements about the health impacts of tobacco</i> : One study reported that the industry tried to persuade the Governor of Montana to stop all public service announcements about tobacco during a period of debates about a proposal for a tobacco tax increase, in order to ensure that these messages were not interpreted as support by the Governor for the tax increase.[52]

Most of the tactics outlined in **Table 4** mirror broader tobacco industry tactics for influencing policy.[70,71] Of the fifteen tactics identified in more than one study, four (1,2,6 and 13 in **Table 4**) represent ways of obscuring tobacco industry involvement in tobacco tax debates. The tobacco industry’s use of front groups has already been well researched,[72,73] and this review demonstrates the vast number of front groups it has been able to establish/use in tax debates, plus the apparently local, ‘grassroots’ identities of many such groups (see names in **Box 2**).

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#### **Box 2: Front groups identified in the studies**

- Arizona Tax Research Association[39]
  - Tobacco Institute’s Labor Management Committee (made up of union groups associated with the tobacco industry)[20,21,28,43,48]
  - Californians for Smoker’s Rights[22,56]
  - Enough is Enough[25]
  - No More Taxes[25]
  - Citizens for a Sound Economy[31]
  - Citizens Against Tax Abuse and Government Waste[42]
  - Committee Against Unfair Taxes [38,41]
  - Colorado Executive Committee[42]
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- Consumer Tax Alliance[27]
  - National Smokers' Alliance[33-35]
  - The National Coalition Against Crime and Tobacco Contraband[19]
  - Missourians Against Tax Abuse[29,30]
  - Missouri Petroleum Marketers and Convenience Stores Association[29,30]
  - New England Convenience Store Association[50]
  - Oklahoma Smokers' Rights[49]
  - Oregonians Against the Blank Check[44]
  - The Fairness Matters to Oregonians Committee[37]
  - Mainers Against Prohibiting Smoking[50]
  - Citizens Against More Tax and Bureaucracy[46]
  - Californians Against Unfair Tax Increases[53,56]
  - South Carolina Association of Taxpayers[51]
  - Stop the Measure 50 Tax Hike[44]
  - Tobacco Consumers, Distributors & Producers Opposed to Unfair Tobacco Sales Taxes[52]
  - The Tax Foundation of Hawai'i[23]
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Studies included examples of industry using front groups both to promote industry arguments about tobacco tax,[22,25,33-35,37,38,41,43,46,48,53] and to recruit credible allies to anti-tobacco tax campaigns.[21,27,28,43,53] By approaching organizations via the Labor Management Committee (a group established by the Tobacco Institute, a trade association of American tobacco companies, and the Bakery, Confectionary and Tobacco Workers Union)[43] and/or an industry created front group known as the Consumer Tax Alliance,[20,21,27,28,32,43,48,55] and by making claims about the regressive nature of tobacco taxes (see above), the tobacco industry was able to successfully persuade some key labor unions and minority groups to support and promote anti-tobacco tax arguments. In the US, this included the Coalition of Labor Union Women.[20,21] Women Involved in Farm Economics,[35] the Congressional Black Caucus[55] and the National Black Police Association.[55] Similarly, arguments about illicit trade (**Table 2**) helped the industry recruit support from retailers[26,42,46] and police groups.[26,53,56]

The industry's combined use of front groups and credible allies helped conceal the origin of industry tax-related arguments and campaigns. This is important given that public knowledge of tobacco industry involvement has been shown to increase public support for tobacco control measures.[72] Tobacco friendly experts, consultancy, public relations and advertising firms were all similarly employed to obscure industry involvement.[14,16-19,23-25,33,34,37,41,48,50,52-54]

Other tactics, such as mass media and publicity campaigns (including op-ed pieces, letters to newspapers and paid adverts), worked to drum up support for industry positions.[29,30,44] In many cases, these campaigns were informed by industry commissioned studies, which either provided local market research to inform the choice of arguments or which sought to provide support for pre-chosen arguments.[14,19,21,23,26,42,44-46,48,52,55,56] One US review found the industry was increasing

its use of market research to inform its anti-tax campaigns, successfully using this information to determine which proposals were deemed worth fighting and which arguments to prioritise.[45]

The industry's campaigns often drew on the relationships it had developed with credible allies. For example, a study of efforts to introduce earmarked tobacco taxes in California found the most effective advert featured an allegedly real, undercover police officer discussing the crime implications of the proposed tobacco tax increases (the effectiveness of this advert was subsequently undermined when it was revealed that the officer only had a police desk job and was also a part-time actor).[53] In other examples (where tax increases were being pursued through the legislature, rather than by direct public votes), the industry helped co-ordinate postal and/or telephone-based campaigns which aimed to encourage/facilitate public lobbying of officials, sometimes by connecting them directly through to officials' offices.[19,31,42,49,50,52] Two studies found tobacco companies encouraged their own staff and stakeholders to lobby policymakers.[18,19] All this suggests public health advocates and those targeted with anti-tobacco tax messages, such as journalists and policymakers, ought to be alert to the tobacco industry's potential involvement, even where messages appear to have emerged from grassroots or independent sources.

The review indicates that the industry also commonly uses a range of more traditional tactics for influencing policy in efforts to prevent tax increases, including direct lobbying of key policymakers and paying or giving gifts to policymakers.[13-17,21-24,25,29,30,32-34,43,47,49-51,53,55] One study in Missouri, US (a swing state) reported that left-of-centre and minority politicians were a particular focus,[29,30] whilst most studies mentioning gift-giving/payments suggested the most influential officials were targeted.[29,30,38,39] Only one study attempted to measure the impact of political donations from the tobacco industry in any detail and it found they had a statistically detectable effect on the legislative behavior of US senators on tobacco control issues.[24] This suggests that it will be critical to ensure that Article 5.3 of the Framework Convention on Tobacco Control, which seeks to protect public health policies from industry interference,[74] is ratified and applied to tobacco tax policies. However, as one study found payments to policymakers were often made via third parties to disguise industry links,[22] this may be difficult to enforce without broader transparency requirements.

Other tactics used by the tobacco industry to prevent proposals for tobacco tax increases that were mentioned in more than one study included working collaboratively, mounting legal/official challenges and proposing alternative legislation. All of these tactics have been reported in relation to broader tobacco industry efforts to combat tobacco control policies.[70,71] Most of the legal challenges reported in studies

failed,[36-38,41] which seems to have been partially because tobacco control advocates learnt from earlier challenges by the industry and worked pre-emptively to prevent the success of any future challenges (e.g. by collecting many more signatures than officially required when seeking to demonstrate public support for tobacco tax increases, thereby preventing successful industry challenges around signature veracity).[37,38,41]

Other tactics were specific to tobacco taxation, many of which appear to have been relatively successful. For example, five of the six studies reporting industry efforts to confuse debates about tobacco excise increases with broader debates about tax increases (all in the US, three of which focused on state level ballot action and three on federal activities) found the industry was successful in achieving at least some of its tax-related aims.[21,29,30,45,46,48] Furthermore, the industry's own research indicated that this was a particularly effective approach.[45] This suggests public health advocates need to work hard to prevent public confusion about distinct tax policies.

The industry also appears to have been consistently effective in its efforts to divert funds away from tobacco control measures to other causes,[22,24,25,37,38,39,41,53,56] and to promote smuggling in response to tobacco tax increases (although only two studies mentioned the latter).[19,40] These two tactics are particularly important because they each provide evidence to support popular industry arguments against tobacco tax increases (see **Table 2**). This suggests tobacco control advocates need to work with policymakers from an early stage in the development of tobacco tax proposals in order to ensure that an adequate combination of measures to combat illicit trade are in place,[8] and that any proposals for earmarking are sufficiently detailed.

### **The success of tobacco industry efforts to keep tobacco taxes low and prevent earmarking**

The majority of studies examined *state-level* initiatives for tax increases in the US (many of which were earmarked) and most found that the industry experienced mixed success, preventing some proposals and amending others in beneficial ways for the industry.[22,23,27,31,32,50,53,54,56] Contextual factors which appeared to assist the passage of earmarked tax increases in US states included opportunities to use direct public votes, the presence of coherent, adequately funded pro-tobacco tax campaigns (in many studies, campaigns were partially funded by voluntary health groups, such as the American Cancer Society, and healthcare organisations), and the presence of budgetary deficits.[24,25,37,38,41,43,56] In contrast, existing public concern about general tax increases and/or distrust of politicians and/or medics and healthcare firms (where proposals were for earmarked tobacco taxes to contribute to healthcare costs) appeared to aid industry campaigns. Overall, the studies suggest the industry has been more

successful at diverting 'earmarked' funds away from tobacco control activities during implementation than in completely preventing excise increases.[22,24,38,41,45,53] This may reinforce future industry claims that earmarked taxes will be used for purposes other than those described in proposals (see **Table 3**).

One of the few comparative studies in this review found the amount of resources invested by the tobacco industry into anti-tax campaigns was a poor indicator of success,[45] whilst the use of market research to guide industry activities was a good indicator.[45]

Most studies focusing on industry efforts to keep tobacco taxes low at a national level found the industry was successful.[13,15,16-18,26,27,28,40] In all cases, a key argument was that tax increases would fuel (or were already fuelling) illicit trade. However, the illicit trade argument was also used in the only study reporting industry failure at the national level, in Hungary.[14] In this example, Philip Morris was advised by officials that its efforts to prevent an excise increase had failed because of the 'divided position of the industry,'[14] a factor which other studies reveal little about as they tend to refer generically to 'the tobacco industry', without distinguishing company positions or activities.

### **Studies concerned with tobacco industry efforts to influence tobacco excise structures**

Only seven studies considered industry efforts to influence tobacco excise structures, most of which found different companies favoured different structures in different contexts. Philip Morris (which produces the high-end Marlboro cigarettes) was consistently found to promote specific taxes,[14,16,17,23] whereas British American Tobacco (BAT; which has historically had a more diverse brand portfolio including mid-price and cheaper, local brands) appeared to prefer mixed excise structures, incorporating an ad valorem element,[14,15,17] presumably because of the competitive advantage this confers over Philip Morris (see **Box 1**).[15,17] Despite their varying preferences, tobacco companies were consistently found to promote their preferred tax structures by claiming that it would increase government revenue and reduce illicit trade,[15,17,23,57] even when they were aware this was not necessarily true.[15,57]

BAT and Philip Morris also appear to have differed in their position on import duties in Hungary, with Philip Morris lobbying to reduce import duties, whilst believing that BAT was working to retain them.[14] There is some evidence to suggest that tobacco company positions on import duties vary according to the level of market dominance, meaning that the same company may take different positions on this in different contexts. For example, a study of tobacco industry influence in



Uzbekistan found that BAT sought to introduce protective import taxes once it had achieved market dominance,[15] whilst a study in Lebanon found evidence of BAT working to prevent increased import duties.[17] However, the limited number of studies exploring these issues means further research is required to draw firm conclusions.

Perhaps unsurprisingly for such a technical issue, the main tactic identified for influencing tax structures was direct lobbying of officials,[16,17,23] sometimes organised via third party consultants.[15,57] Companies also sought support for their preferred excise structures from international financial sources, such as the IMF[17] and US Trade Representatives.[16] In Hawaii, Philip Morris and the Tobacco Institute employed economists to help promote a specific structure.[23] In former Soviet Union countries, BAT's efforts to influence tax structures appear to have been aided by the fact it was able to position itself as a credible source of tax expertise (officials in these countries were, at that time, unused to dealing with free-market corporations and had little experience with tobacco excise).[15,57] In Hawaii and the Gulf Region, the tobacco industry exploited differences in tax structures between neighbouring regions/countries.[18,23] In contrast to the studies concerned with excise levels, none of the studies of tax structures mentioned any significant public health involvement. Combined with the lack of research on this issue, this suggests public health advocates urgently need to enhance their understanding of tobacco tax structures and engage in policy debates on this issue.

## **REVIEW LIMITATIONS**

To ensure that the searches were as extensive as possible, our strategies were piloted, revised and aided by a qualified librarian (see acknowledgements). In addition, the bibliographies of all pertinent studies were hand-searched, we consulted experts in the area and requested information on unpublished or in-progress research. Despite this, it is not possible to be certain that all relevant studies have been located. The review is also limited by the fact that most included studies did not primarily focus on tobacco industry efforts to influence tobacco tax policies and merely considered this as part of a broader study. Finally, there was a strong geographical bias: studies involving the US dominate evidence relating to industry efforts to influence excise levels (which may have been exacerbated by the fact we only included publications in English), whilst countries undergoing political and economic transitions dominate evidence concerning industry efforts to influence tax structures. In both cases, this limits the extent to which we can make claims about the generalizability of positions, arguments and tactics.

## CONCLUSION

The results of this review suggest that the tobacco industry tends, uniformly, to lobby against tobacco excise increases (although it should be noted that the studies included in this review largely focused on *significant* tobacco tax increases) and that it particularly dislikes increases earmarked for tobacco control (which were largely pursued in US states, often by direct public ballots). In challenging such proposals, the industry arguments identified most often in the studies in this review, and used most successfully, were based on claims tobacco tax increases are socially regressive and stimulate illicit tobacco trade (therefore contributing to broader crime problems). As **Table 2** summarises, these arguments are countered by a recent IARC review of available evidence.[8] Given that US studies showed that both arguments helped the industry gain credible, non-traditional allies, including labor and minority groups and left-of-centre politicians, it seems particularly important for public health advocates to contest these two arguments..

Other commonly identified industry arguments which are particularly misleading include claiming that tobacco taxes are unfair on smokers, with smoking being framed as a matter of individual (adult) choice. This fails to acknowledge that smoking is an addiction typically established in childhood,[68] and that most smokers would rather quit.[64,65] Also, where the industry tries to cast doubt over the link between price and consumption, it is easy to demonstrate that there is a great deal of evidence to support this link,[8] and that the industry has been fully aware of this relationship for many years.[66] Similarly, there is a great deal of evidence to challenge tobacco industry claims that increased tobacco taxes lead to lower government revenues (indeed, the opposite is usually true).[8] Cross-study comparisons highlight further evidence of the misleading nature of some of industry's arguments. For example, while the industry sometimes claims price increases will *not* reduce consumption,[26,28] at other times it claims that tax increases will result in job losses because such rises *do* reduce consumption.[13]

Certain arguments may be context specific but our ability to comment on this is limited by the geographical bias of studies towards the US. Nevertheless, our review suggests the industry adapts its arguments in line with perceived public and political preferences and often undertakes market research in order to inform decisions about which arguments/claims to concentrate on.[14,19,21,23,26,42,44-46,48,52,55,56]

The impact of arguments may also depend on context. For example, claims that tobacco tax increases will lead to cross-border shopping, or illicit trade, may be more effective in contexts in which substantial numbers of the population live close to an area in which significantly cheaper tobacco products are available, or in which smuggling is already a problem.

Industry arguments that the revenue from *earmarked* tobacco tax increases would be diverted or misused seems likely to have been particularly persuasive to the public and/or policymakers as such diversions did occur, in part as a result of tobacco industry efforts, allowing the industry to gather evidence to support this claim. This suggests that advocates for earmarked tobacco tax proposals need to ensure that revenue allocation is clearly agreed at an early stage (preferably without tobacco industry involvement) and that this is closely monitored in order to prevent later changes.[25]

Favoured industry tactics to influence policy decisions about tobacco excise largely mirror those used by the industry to influence policy more generally,[70,71-73,75-80] including: establishing 'front groups', allying with third parties that have (or can be persuaded to have) a shared interest in the industry's position; direct lobbying of relevant officials; media and publicity campaigns; legal (or other official) challenges; commissioning/using supportive research; employing professional consultants and public relations services; paying or giving gifts to policy-makers; proposing alternative legislation; and using friendly 'experts'. However, three of the most successful tactics were tax-policy specific: confusing debates about tobacco excise increases with broader tax debates; stimulating smuggling in order to support claims that tax increases have contributed to more illicit trade; and working to divert earmarked funds (see above).

The limited evidence concerning industry efforts to influence tobacco excise structures (seven papers in seven different countries/regions), suggests different companies favour different tax structures (e.g. Philip Morris seems to prefer specific structures, which favour the more expensive profile of its brands, and BAT seems to prefer mixed excise structures, incorporating ad valorem elements, which favours its more mixed brand portfolio – see **Box 1**). Yet both present their preferred structure as the best means of reducing illicit trade and increasing government revenue, even when aware this is not necessarily true.[15,57] There is also some limited evidence that companies shift their position on import duties in relation to their market dominance. This highlights the need to be aware of company and context specific differences. Indeed, for tax policy, it may be unhelpful to refer generically to the 'tobacco industry'.

The lack of studies focusing on industry efforts to influence tax structures also signals the need for further research, not least because certain structures can work to limit the availability of cheap tobacco products,[8] and because most of the existing research in this area focuses on countries undergoing economic and political transformation.[14,15,17,57,58] We currently know very little

about tobacco company efforts to influence tax structures in stable economies.

The significant geographical bias of included studies towards the US is important as the US is one of the world's most economically developed countries and tobacco excise levels are lower there than in many other high income countries.[81] It should therefore not be assumed that the industry will take the same positions or approaches elsewhere. Indeed, even within the US, it is clear that approaches vary with context (e.g. between states allowing public ballot initiatives and states in which the legislature is the only route to achieving tobacco tax increases). Further research in the US could usefully identify the extent to which tobacco industry arguments and tactics for influencing tax policies vary with the political profile of states, over time and with other factors, such as the level of tobacco farming. Beyond the US, reviews of non-English evidence and/or further research on all aspects of tax-related lobbying is urgently required as the evidence we were able to locate relating to the rest of the world was extremely limited. Increasing the evidence-base on tobacco industry efforts to influence tax policies will enable us to better understand what different parts of the industry aim to achieve in relation to tobacco excise rates and structures in a variety of contexts, and why. This, in turn, should aid public health efforts to achieve tobacco taxation policies that most effectively support tobacco control.

**Box 3: What is already known about this topic?**

- Many case studies of tobacco industry efforts to influence specific tobacco tax policies exist but there has been no attempt to collate or collectively assess this information.

**What this paper adds**

- This paper systematically reviews tobacco industry efforts to influence tax policies.
- The review demonstrates that tobacco companies tend uniformly (often collectively) to lobby against tobacco tax increases and that the four most commonly identified arguments in the existing literature are that tax increases: stimulate illicit trade; are socially regressive; are unfair on smokers; and have negative economic impacts. Tactics to influence tax levels generally mirror broader tobacco industry efforts to influence policies but also include some tax-specific tactics, such as trying to confuse debates about tobacco tax increases with broader tax policy debates.
- Comparing the industry arguments to keep taxes low identified in this review across studies and against up-to-date expert evidence, the paper identifies the misleading nature of many of these arguments.
- The review also highlights the paucity of research on tobacco industry efforts to influence: (i) tobacco tax structures; and (ii) tobacco tax policies outside the US.

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#### **Authorship and Contribution (in line with ICMJE criteria)**

AG and KS jointly conceived and designed this review. KS acquired the data (studies) with assistance from CF and LJ (see acknowledgements). AG, ES and KS all contributed to the analysis and interpretation of data. KS wrote the first draft of the article. AG and ES both edited and revised the paper for important intellectual content. AG is the Principle Investigator of the project of which this review forms part. All authors approve this version of the paper.

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